

CHRONIC WASTING DISEASE

UPDATE



Wisconsin Department of Natural Resources

August 2006

Alan Crossley (pictured) leads chronic wasting disease (CWD) control efforts for the Wisconsin Department of Natural Resources (DNR). Since the discovery of CWD in Wisconsin in 2002, the DNR has made many efforts to control the disease. Here is his perspective on the status of those efforts.



Our message has really changed very little since we began this effort in 2002. The department believes that the discovery of

CWD in southern Wisconsin represents a significant threat to Wisconsin's white-tailed deer population and the state's culture of deer hunting. Wisconsin has more than 700,000 deer hunters who have harvested an average of 460,000 deer annually during the past decade. Deer hunting contributes more than 7 million days of recreation, generates more than \$500 million in retail sales and nearly \$1 billion in total impact to the state's economy each year.

There is no evidence that CWD will "burn itself out" if left alone. Further, there is no evidence of genetic resistance to CWD

in white-tailed deer, or mule deer in the western U.S. where the disease has also been found. Without intervention, CWD will spread throughout Wisconsin and the percentage of deer infected with CWD will substantially increase.

Wisconsin has chosen to actively intervene. The two basic disease management strategies in place here are reducing the infected deer herds and annually removing as many sick and susceptible deer as possible from the infected areas through expanded hunting seasons. These strategies require a long-term commitment to be successful. CWD management is our number one wildlife program priority because of the importance of deer to our state.

In short, we are trying to prevent what has happened out west. Colorado has witnessed steady increases in CWD prevalence over the past few years in numerous local deer populations. There, prevalence on some local winter ranges now exceeds 25-30%. To put this in perspective, in some sections of Wisconsin's core area prevalence is as high as 8-12%. In addition, the known affected area in both Colorado and Wyoming has expanded to the west and northwest more than 100 miles during the past five years.

In the first three seasons of CWD management in Wisconsin, gun seasons were greatly expanded

and hunters were required to earn their buck by harvesting an antlerless deer first. These combined strategies were designed to control CWD by reducing the size of the deer herd as much as possible. Winter helicopter surveys indicated these seasons did reduce the infected deer herds. However, we heard from many hunters and landowners that these seasons did not meet their desires.

Last year, we modified the CWD hunting rules by shortening the gun season length and limiting the earn-a-buck requirement only to the late October – early November hunting period. This year, we

Continued on p. 2

2006 CWD Zone Seasons

Archery Season:

September 16 to January 7

Youth gun hunt:

October 7 & 8

Early gun season:

October 14-22 (DEZ)

October 19-22 (HRZ)

Late gun season:

November 18 to December 10

Tagging:

Unlimited either-sex, same tag for any deer

CWD zone boundaries will remain the same as last year.



Landowner Survey

are further responding to concerns with a number of season changes. The early gun season in both disease eradication zones (DEZ, see map on p. 4) will be shortened from 18 days to nine days and moved up ahead of the breeding season to mid-October. The early gun season in the herd reduction zone (HRZ, see map on p. 4) will remain four days. The late gun season, in both the DEZ and HRZ, will end on December 10 instead of January 3 to address landowner concerns. And, hunters may take deer of either sex during the entire season.

While this year's season definitely goes much further in addressing hunter and landowner desires, it must also adequately address CWD management needs. In 2005, antlerless harvests dropped in the CWD management zones and our winter helicopter surveys showed mixed deer population responses. Deer numbers remained stable or increased in the Western DEZ and decreased in the Eastern DEZ and the Hollandale Area.

We will watch this development closely, but, we want to give hunters and landowners a chance with rules that are more to their liking. Many hunters believe they can accomplish the needed deer harvest with shorter gun seasons that concentrate hunting activity, particularly on the two opening weekends, resulting in more deer movement and high harvests.

We recognize that CWD management will not be successful without the cooperation of landowners and hunters. Without your help, we would be faced with an impossible challenge. We thank you for all of your contributions and for sticking with us through this challenge.

Hunters and landowners are the key to CWD in Wisconsin, but garnering and holding their support is probably the most critical issue facing the DNR, according to a recent report.

The 55-page report, *Landowner Response to Chronic Wasting Disease and its Management in Wisconsin's Southwest Disease Eradication Zone*, by DNR research scientist Jordan Petchenik, is based on answers obtained from a 22-page mailed questionnaire sent to a random sample of 1,000 landowners in the southwest DEZ.

State wildlife officials set a goal of eradicating CWD from the state based on the determination by wildlife disease experts that without management intervention, the disease will increase in prevalence and distribution.

"To accomplish disease eradication, the state is relying on cooperation from both hunters and landowners. Hunters must be willing to shoot more deer and landowners must allow hunters on their land," Petchenik said.

His report examines landowner response to CWD in the southwest DEZ of mainly Iowa County and western Dane County. Petchenik set out to measure:

- Landowner concerns about the risks associated with CWD
- Where landowners obtain information about CWD
- Landowner support for various CWD control measures
- The effect of various monetary incentives to shoot more deer.

Perhaps the study's major finding is while "landowners support the state's goal of disease eradication, they also show mixed to low support for the various



disease eradication techniques," according to Petchenik.

"In other words, landowners agree with the end result, eliminating CWD, but they voice strong disapproval on how to get there," he added.

Other major findings include:

- Monetary incentives have little effect on increasing the time a hunter spends in the field or on the number of deer he/she will harvest.
- From a human dimensions perspective, disease eradication will be a challenge because landowners do not believe the disease can ever be fully eradicated from the state.
- Land owning hunters are taking advantage of the extended seasons and those who do are killing more deer.

DNR wildlife officials, in response to the study's findings, decided to drop a \$20 lottery incentive for the 2005 deer season, but continued a \$200 landowner/hunter payment for shooting CWD-positive deer to acknowledge the important role of landowners and hunters, and to focus the message on the value of removing CWD-infected deer from the landscape.

The study is available for free from the DNR through the Bureau of Integrated Science Services or contact Martin Griffin, Science Communications Manager (608) 266-0824, martin.griffin@dnr.state.wi.us.



We Need Your Help

To make deer registration more convenient for hunters, the DNR would like to have as many registration/sampling stations as possible scattered throughout the CWD zones. We're looking for organizations, businesses, or interested individuals to help us operate these stations. The DNR will train you and provide any equipment needed. Up to \$1.00 will be given for every deer registered and \$7.50 will be given for every head properly collected.

**For more information contact Sara Kehrli at
(608) 935-1916 or sara.kehrli@dnr.state.wi.us**

The Sampling and Testing Process

Anyone who has submitted a deer head for CWD testing knows that it may take up to 12 weeks to get results. This is a consequence of the enormous number of heads collected in a short period of time. Last season, 46% of deer sampled were brought in during the early and traditional gun season opening weekends.

For the hunter, the process begins at one of many registration and tissue sampling stations. Here the head is removed from the deer and some information is collected. Samplers will need to know precisely where the deer was harvested down to the quarter section.

Next, one tag is attached to the deer head, and an identical tag is attached to the deer. Both of these tags have a bar code and a number on them. This number can later be used to check testing results on the DNR's Web-site. The bar code is used to identify the deer through the rest of the process.

The sample is then delivered to the Black Earth Processing Center. Here the deer's age is determined, and that information, along with sex and harvest location, is entered into a computer database.

Technicians then remove two lymph nodes from the head. These

retropharyngeal lymph nodes (retro meaning behind and pharyngeal referring to the wind pipe) are one tissue where the prion accumulates and can be readily detected.

Unfortunately the lymph nodes do not change in outward appearance due to prion infection, meaning the work is not done. One of these nodes is then frozen and archived at the Black Earth Processing Center for future research, and the other is sent to the Wisconsin Veterinary Diagnostic Laboratory (WVDL) in Madison.

At the WVDL the sample may be put through two tests. The first test, called the ELISA, which all samples go through after some further preparation, is a screen that can be done in batches to speed up the process. For samples that screen negative, the journey is over. The DNR Web-site is then updated, and a postcard is sent to

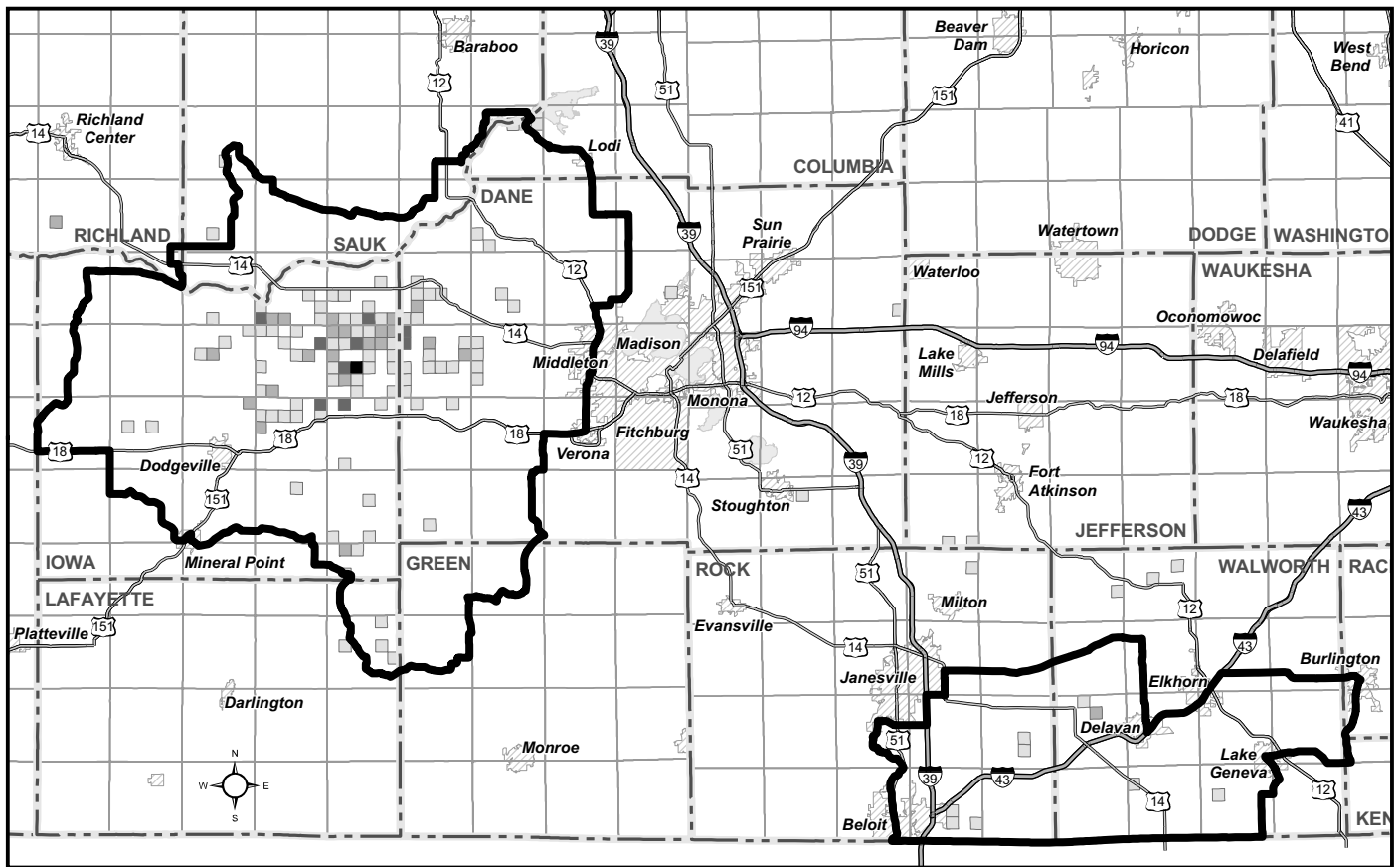


the hunter.

For samples that screen positive, a second test is used. The immunohistochemistry or IHC test is considered the "gold standard" and is much more labor intensive. Samples are stained and a qualified technician must then examine them under a microscope. A very high degree of accuracy makes this test better for confirming the presence of CWD.

At this point, if a deer is confirmed as positive, DNR staff will phone the hunter and the owner of the land where the deer was harvested.

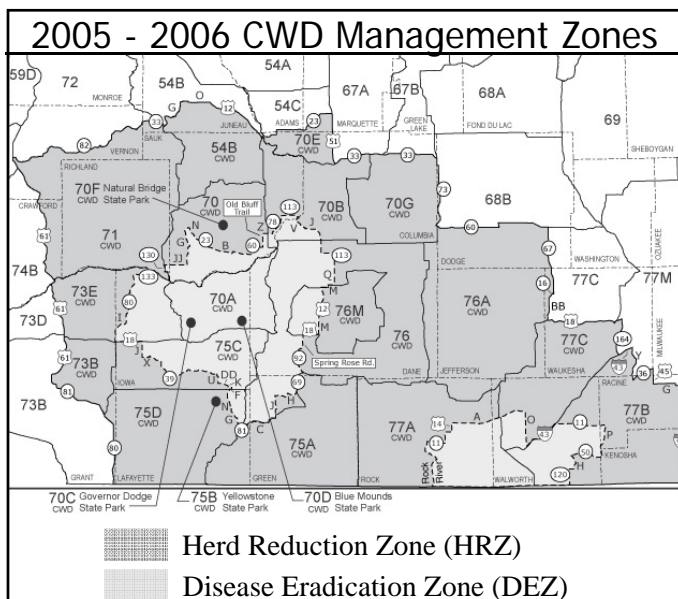
2005 - 2006 CWD Positives



1 Positive Deer
2 Positive Deer

3 Positive Deer
6 Positive Deer

2005-2006 Eradication Zones
County Boundary
Township Line



2005 - 2006 CWD Zone Harvest

During the 2005-2006 CWD season 65,070 deer were harvested within the two disease eradication zones and the herd reduction zone. A total of 19,586 deer were submitted for CWD testing.

701 of these deer were taken by DNR sharpshooting and trapping. The rest were harvested by hunters. 181 have tested positive for CWD. Only 15 of these animals were harvested in the herd reduction zone.

1,712 deer were donated to the DEZ food pantry program, meaning people kept the majority of deer for consumption.

Deer Farm Update

With more than 700 deer and elk farms in Wisconsin, the possibility of CWD transmission between our captive and wild herds remains an issue, according to Julie Langenberg, DNR Veterinarian.

The farm-raised deer and elk industry is regulated by the Department of Agriculture, Trade, and Consumer Protection (DATCP). The DNR, however, regulates white-tailed deer farm fences because they are important barriers between captive deer and wild ones.

Out of the seven farms in the state confirmed to have CWD in their herds, all but one have been depopulated by the United States Department of Agriculture (USDA) and DATCP. One CWD positive farm in Crawford County remains under quarantine pending legal proceedings.

The most recent depopulation took place at Buckhorn Flats in Portage County in January, 2006. In 2002, this was the first farm in the state to find a CWD positive animal. Prior to this year's depopulation, a total of 21 deer from the farm tested positive for CWD.

In January, eighty deer were removed from the farm, and 61 tested positive for CWD, bringing the total number of CWD-infected deer for Buckhorn Flats to 82.

This demonstrates how extensively the disease can spread among deer in a confined area, and why immediate depopulation of a CWD infected farm is important for controlling the disease, Langenberg said.

At the time of the Buckhorn Flats herd depopulation, it was also reported that a fence on the property was cut, potentially allowing captive deer to escape or wild deer

to enter the farm. Stanley Hall, the owner of Buckhorn Flats, stated that about 40 deer may have escaped through the cut fence.

This prompted the DNR to work with local landowners and community leaders in an effort to shoot all deer found within roughly 2.5 miles of the farm. By the end of March this resulted in 36 deer killed and tested, 19 of which were harvested by landowners. None tested positive for CWD.

In addition, as part of this fall's CWD testing in the west central region of the state, as many samples as possible will be collected from a ten mile radius centered on Buckhorn Flats in Portage county.

Once a CWD infected farm is depopulated, measures are taken to reduce the chances of environmental contamination and disease spreading from it. In all areas of

heavy deer traffic on the farm, the top two inches of soil must be removed and buried two feet deep. This void is then filled by new soil. Any wooden equipment, such as feed and water troughs, must be burned. The DATCP disinfects any metal or plastic with a strong bleach solution, and no deer or elk can be brought onto the property for five years after the depopulation has occurred.



Landowner Permits

- The DNR will issue permits to landowners with five or more acres of land within a DEZ.
- Permits will be valid beginning September 16, 2006 and expire on March 31, 2007.
- Under the authority of these permits, landowners can hunt without a license provided they meet age and hunter safety requirements.
- Landowners interested in a permit can obtain one at any hunting license sales location for a \$2.00 processing fee by September 1, 2006.
- Landowners can also authorize hunters to hunt on property they own within a DEZ. Authorized hunters can hunt on land covered by a landowner permit without a deer license provided they meet age and hunter safety requirements and apply for a DEZ hunter permit.
- Hunters wishing to hunt under the authority of a landowner permit must first pick up a DEZ hunter permit and landowner permit authorization forms at a hunting license sales location. These permits will also be available by September 1, 2006 for a \$2.00 processing fee.
- Hunters under the authority of a landowner permit are restricted to use of a bow from September 16 through October 13 and from October 23 through November 17 2006. Guns may be used during the designated gun seasons, and from December 11, 2006 through March 31, 2007.

For more information on
CWD visit the following
Web sites:

[http://dnr.wi.gov/org/land/wildlife/
whealth/issues/CWD/index.htm](http://dnr.wi.gov/org/land/wildlife/whealth/issues/CWD/index.htm)

and

[http://wildlife.wisc.
edu/coop/CWD/CWD_
Introduction.html](http://wildlife.wisc.edu/coop/CWD/CWD_Introduction.html)

or call the DNR's toll-free
CWD information line

**1-877-WISC CWD or
1-877-947-2293**

between 8 A.M.-4 P.M.
Monday-Friday

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of the Interior, Washington, D.C. 20240.

This publication is available in alternate format (large print, Braille, audio tape, etc.) upon request. Please call 608-266-6790 for more information.



PUB-CE-463-2006

What should I do if I observe or harvest a deer that I suspect might have CWD?

Call your regional DNR office right away.
Agency staff will try to kill the deer and collect
samples from it for CWD testing.

Wisconsin State Agency Contacts

Department of Natural Resources

Bureau of Wildlife
Management

608-266-8204

dnr.wi.gov

Department of Agriculture, Trade and Consumer Protection

Office of Outreach and
Policy/Animal Health
and Safety Issues

608-224-5130

datcp.state.wi.us

keyword chronic
wasting disease

Department of Health and Family Services

608-267-7321

**dhfs.wisconsin.gov/
communicable/
Communicable/
factsheets/
creutzfeldt.htm**

Are You Getting More than One Newsletter?

If you receive more than one of these newsletters each month, please clip off the labels from each of the newsletters and send them back to us so we can remove doubles from our mailing list: CWD Information, Wisconsin DNR WM/6, PO Box 7921, Madison, WI 53707.

Presorted Standard
U.S. Postage
Paid
Madison, WI
Permit 906

Department of Natural Resources
Bureau of Education and Information
101 S. Webster Street
PO Box 7921
Madison, WI 53707-7921